

## **Appendix C**

### **Declaration of Douglas M. Pennington**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
Kevin A. Seiling	)	
Serial No. 10/001,730	)	A COMPOSITION FOR MAKING
Filed: November 2, 2001	)	EXTRUDED SHAPES AND A
Art Unit: 1732	)	METHOD FOR MAKING SUCH
Patent Examiner: Kuhns, Allan R.	)	COMPOSITION
Our Ref: 01-180	)	
	)	

Assistant Commissioner for Patents  
Washington, DC 20231

October 12, 2007

**DECLARATION OF DOUGLAS M. PENNINGTON**

NOW COMES Douglas M. Pennington, an individual, who resides at 8 Branch St., Stoneboro, Pennsylvania, and who declares that the following facts are true, complete and correct:

1. I work in the Research and Development Group of Veka, Inc. in Fombell, Pennsylvania where I have been employed for approximately eight years. Prior to that time, I worked in an injection molding company. In 1998, I earned an associate degree in Plastic and Polymer Engineering Technology from Penn College of Technology.
2. During my employment at Veka, I have tested numerous formulations for vinyl compounds, and particularly for polyvinyl compounds.
3. My work experience has involved testing extruded compounds, including testing numerous formulations for ingredients thereof. Some of those formulations have included polyvinyl chloride and glass fiber as ingredients.
4. Through this experience, I have become knowledgeable in the art of vinyl compound formulas.

5. At Veka, I frequently work with other employees to test proposed new compounds and compound formulas. Many of these formulations include polyvinyl chloride together with other ingredients. The purpose of this testing is to measure various characteristics of the tested compositions. For example, we have varied or substituted ingredients of polyvinyl chloride compounds and then measured the weathering, color, extrusion characteristics, and impactability, as well as other characteristics and properties of those compounds.
6. Typically, vinyl extrusion compounds have from about five to more than about twelve different ingredients. The relative proportions and the methods for blending these ingredients often effect the properties of the extruded products.
7. I have read U.S. Patent Application Serial No. 10/001,730 which is entitled "A Composition for Making Extruded Shapes and a Method for Making Such Composition" (herein "the '730 Application"). The '730 Application describes a compound in which glass fibers that comprise 1% to 18% by weight of the composition are imbedded in a closed-cell polyvinyl chloride material.
8. In my duties at Veka, I tested closed cell polyvinyl chloride compounds in which glass fibers that comprise 1% to 18% by weight of the compound were imbedded in the compound. (herein "the Glass Fiber/PVC").
9. I compared the test results of the Glass Fiber/PVC with test results of a closed cell polyvinyl chloride compound that included cellulose fibers that comprise 1% to 18% by weight of the compound. The Glass Fiber/PVC was less moisture absorbent and retained colors longer than the compound in which the cellulose fibers were included in the closed-cell polyvinyl chloride compound.
10. I have also read U.S. Patent 6,623,838 to Nomura (herein "Nomura"). Nomura describes an expansion molding process wherein a thermoplastic compound is injected into a mold having an expandable mold cavity. The mold cavity is expanded as the molded part is formed to create a hollow cavity in the molded part. The molded product is an open-cell thermoplastic compound that is described as including glass fibers. According to Nomura, a chemical blowing agent participates with an injected gas to cause the injected thermoplastic compound to have an open cell structure.

11. Polyvinyl chloride compounds that have an open cell structure are known to be structurally weaker than polyvinyl chloride compounds that have a closed cell structure but that are otherwise equivalent.
12. As one skilled in the art, I would not anticipate that the molded product that is described in Nomura would be as strong as the Glass Fiber/PVC composition because the molded product in Nomura is an open-cell thermoplastic compound and it is known to those skilled in the art that open-cell thermoplastic compounds are not as strong as closed-cell thermoplastic compounds.
13. I have also read U.S. Patent 6,062,624 to Crabtree (herein "Crabtree"). Crabtree describes a thermoplastic material that is useful in filling irregular spaces. Crabtree states in Column 3, lines 52-53 that "The foam material may be open or closed cell." As one skilled in the art, to me this means that the thermoplastic material in Crabtree is foamed in an uncontrolled process such that some of the cells may be closed and some of the cells may be open. However, Crabtree does not teach how to control the process described so as to selectively create closed cells in the thermoplastic material. As one skilled in the art, it is not apparent to me how the thermoplastic materials described in Crabtree could be successfully incorporated into the expansion molding process that is described in Nomura to produce a closed cell product.
14. I am advised that the U.S. Patent Office contends that a closed-cell polyvinyl chloride compound with imbedded glass fibers that comprise 1% to 18% by weight of the composition would be obvious from Nomura because the open-cell thermoplastic compound of Nomura could be replaced by a closed cell thermoplastic compound according to Crabtree.
15. I find no teaching in Crabtree that would lead one skilled in the art to modify Nomura so as to achieve a closed cell thermoplastic material. Furthermore, I have found nothing in either Nomura or Crabtree that suggests that they should be combined for any purpose or how such a combination could be achieved to produce a closed cell thermoplastic material.
16. Based on my experience and my reading of Nomura and Crabtree, I do not agree that the open-cell structure of Nomura can be converted into a closed-cell

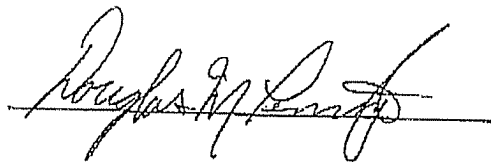
structure. As one skilled in the art, I do not know how to attempt such a conversion. I have found no teaching in Crabtree that is instructive as to how to convert the open-cell structure of Nomura into a closed cell structure.

17. Nomura represents that it is an improvement over thermoplastic moldings made by prior art expansion molding processes. According to Nomura, the prior moldings made by expansion molding processes were structurally weak, particularly when the moldings incorporated a large hollow area. To overcome this problem, Nomura provides an internal rib in the hollow area of the molding. This rib is intended to mechanically support and strengthen the molding.
18. I do not agree that the teachings of Nomura could be modified by any teaching of Crabtree to result in a closed cell thermoplastic molding. Even if Nomura could be so modified, the molding would be much stronger so that the internal rib would not be needed. To the contrary however, Nomura addresses the problem of mechanical weakness by constructing internal ribs. The use of internal ribs is a way of strengthening the molding that is completely different from the use of closed-cell compounds. The methodology of constructing internal ribs in the molding negates the motivation to compose a molding with a closed cell thermoplastic material. In this way, Nomura suggests the continued use of an open cell thermoplastic material and leads away from the use of closed cell thermoplastic compounds.
19. Based on my years of experience in the development of polyvinyl chloride compounds, in November 2001 when the '730 Application was filed it would not have been obvious to one normally skilled in the art to modify Nomura in accordance with any teaching of Crabtree. Furthermore, it would not have been obvious to one skilled in the art as to how a combination of Nomura and Crabtree would result in a polyvinyl compound with closed cells in which imbedded glass fibers comprise 1% to 18% by weight of the composition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Further I say not.

A handwritten signature in cursive script, reading "Douglas M. Pennington", written over a horizontal line.

Douglas M. Pennington